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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/872,587	06/01/2001	Seiichi Kawano	JP920000116US1	2631

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EXAMINER

ZHOU, TING

ART UNIT PAPER NUMBER

2173

DATE MAILED: 12/23/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/872,587

Applicant(s)

KAWANO ET AL.

Examiner

Ting Zhou

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 June 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_ 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to because the figures are labeled incorrectly. The labels at the top of each figure show the figure as 1 of 9 total drawings (for example, the display of “(1/9)” in Figure 1). However, there are 10 total Figures presented.
2. Applicant is required to submit a proposed drawing correction of the above noted deficiencies (preferably in red ink) in reply to this Office action. However, formal correction of the noted defect may be deferred until after the examiner has considered the proposed drawing correction. Failure to timely submit the proposed drawing correction will result in the abandonment of the application.

### ***Specification***

3. Applicant is reminded of the proper language and format for an abstract of the disclosure. The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited.

The abstract is objected to as being too short in length; it is not adequately descriptive to convey the whole invention.

### ***Claim Objections***

4. Claims 10-12 are objected to because of the following informalities: The phrase “prompting a user to press a predetermined key placed in a position unique to the key layout of the keyboard of the keys of the keyboard provided for said computer system” on lines 3-4 of claim 10 does not clearly convey the limitation of the claim. The phrase is advised to be changed to -- prompting a user to press a predetermined key placed in a position unique to the key layout of the keyboard provided for the computer system --. All subsequent dependent claims are objected to as well. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1-4, 10-13, 15 and 17-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Kapp et al. U.S. Patent 5,949,348.

Referring to claim 1, Kapp et al. teach a system comprising means for displaying an on-screen keyboard having a predetermined key layout on a display screen (Figures 5-16), means to determine the key layout of the on-screen keyboard and a password checking means for processing a password (personal identification number) inputted by pointing to the on-screen keyboard, as recited in column 2, lines 1-13.

Referring to claim 2, Kapp et al. teach determining a type of the key layout of the keyboard mounted on the system (shown on the touch screen) and renders the key layout as the key layout of the on-screen keyboard displayed (the system comprises a plurality of keyboard representations and entry of data by contacting areas corresponding to depictions of specific keys of the keyboard representation), as recited in column 2, lines 30-47.

Referring to claims 3, 10 and 15, Kapp et al. teach a system, method and memory for generating an on-screen keyboard shown on a display and used as an input device for a computer system (column 1, lines 45-51). Specifically, Kapp et al. teach the system and method

comprising the steps of prompting a user to press a predetermined key unique to the key layout of the keyboard, identifying the type of the key layout for the keyboard accordingly and generating that key layout on the on-screen keyboard. The customer is presented with the ability to press a customer selectable override (pressing a predetermined key unique to the keyboard) which enables the use and display of some other preferred format for the keyboard format shown on the display, as recited in column 6, lines 35-51.

Referring to claim 4, Kapp et al. teach a system comprising a display device having a touch panel function and displaying an on-screen keyboard used for input of a password (personal identification number), a memory for storing data, a CPU for processing a password inputted using the on-screen keyboard, wherein the touch panel displays the on-screen keyboard representation at start up based on data read from memory, as recited in column 1, lines 55-64 and column 7, lines 3-15.

Referring to claim 11, Kapp et al. teach prompting the user to press a key on the keyboard and determining the layout of the keyboard based on the position of the pressed key, as recited in column 7, lines 16-26 and column 8, lines 44-57. Although Kapp et al. does not explicitly teach presenting a message prompting the user to press a Z key on the keyboard and determining the key layout according to the position of the pressed Z key, it is obvious to one of ordinary skills in the art that the method taught by Kapp et al. will need to display some sort of message to the user to prompt them to press a certain key on the keyboard in order to override the displayed keyboard format and identify and display another keyboard format. The key layout displayed is determined from the format code and position code associated with the keyboard

format displayed. This will give users the added option of picking the exact keyboard format they want to use.

Referring to claim 12, Kapp et al. teach a method of generating an on-screen keyboard wherein identifying the keyboard format comprises determining the position of the pressed key based on the scan code (position code) associated with the position of the pressed key, as recited in column 8, lines 47-57.

Referring to claim 13, Kapp et al. teach a method of checking a password on a computer system comprising the steps of displaying an on-screen keyboard on a touch panel doubling as a display device and checking the password inputted by pointing to the on-screen keyboard against a predetermined proper password, as recited in column 2, lines 1-13.

Referring to claim 17, Kapp et al. teach a memory storing a program for making a computer execute the processes of displaying an on-screen keyboard on a touch panel doubling as a display device and checking a password inputted by pointing to the on-screen keyboard against a predetermined password, as recited in column 2, lines 30-47.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kapp et al. U.S. Patent 5,949,348, in view of Hosoi et al. U.S. Patent 5,251,096.

Referring to claim 8, Kapp et al. teach a computer system having a display device having a touch panel function as an input device and inputs a password on startup by touching the touch panel, as recited in column 2, lines 30-47. However, Kapp et al. does not teach a mechanical keyboard wherein the keyboard is concealable while not in use. Hosoi et al. teach a computer system comprising a keyboard input device and a display similar to that of Kapp et al. In addition, Hosoi et al. further teach the keyboard being a mechanical and concealable while not in use, as recited in column 4, lines 30-38 and shown in Figures 1 and 2. It would have been obvious to one of ordinary skill in the art, having the teachings of Kapp et al. and Hosoi et al. before him at the time the invention was made, to modify the computer system taught by Kapp et al. to include the concealable mechanical keyboard of Hosoi et al. One would have been motivated to make such a combination in order to save space and create a more compact computer unit for the user.

Referring to claim 9, Kapp et al. teach all of the limitations as applied to claim 8. They also teach inputting a password by using the touch panel of the display device without moving the display device from its position on the keyboard, as recited in column 1, lines 55-64. However, Kapp et al. fail to teach the display being a flat panel display capable of, as a concealer of the keyboard, covering the keyboard by positioning it on the keyboard with its back face facing the keyboard. Hosoi et al. teach a flat panel display (LCD display screen) capable of covering the keyboard by positioning it on the keyboard. Although Hosoi et al. do not explicitly state the display being placed on the keyboard with its back face facing the keyboard, they teach



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the display unit being rotatable, as recited in column 6, lines 6-11. Therefore, it is obvious that the display can be placed on the keyboard with either its front or back face facing the keyboard. It would have been obvious to one of ordinary skill in the art, having the teachings of Kapp et al. and Hosoi et al. before him at the time the invention was made, to modify the computer system taught by Kapp et al. to include the rotatable display unit of Hosoi et al. It would have been advantageous for one to utilize such a combination in order to give users the added ability to view the display panel while the keyboard is hidden and the computer system closed.

7. Claims 5-7, 14, 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kapp et al. U.S. Patent 5,949,348, as applied to claims 4, 13, 15 and 17 above, and further in view of Cairns U.S. Patent 5,161,190.

Referring to claim 5, while Kapp et al. teach all of the limitations as applied to the claims above, they fail to teach a mechanical keyboard apart from the on-screen keyboard displayed, wherein the on-screen keyboard has the same type key layout as the mechanical keyboard. Cairns teaches a system for user identification and authentication similar to that of Kapp et al. In addition, Cairns further teaches a physical keyboard (matrix of keys) in addition to the on-screen keyboard (LED display means), wherein the LEDs correspond to the physical keyboard, as recited in column 3, lines 48-58. It would have been obvious to one of ordinary skill in the art, having the teachings of Kapp et al. and Cairns before him at the time the invention was made, to modify the system taught by Kapp et al. to include the mechanical keyboard of Cairns. It would have been advantageous for one to utilize such a combination in order to give users the

versatility of being able to type on an actual keyboard, which they are more used to, instead of only on a virtual keyboard shown on a touch screen.

Referring to claim 6, while Kapp et al. teach all of the limitations as applied to the claims above, they fail to teach a CPU which makes an input signal from the displayed keyboard emulate an input signal by key entry in order to process an inputted password. Cairns teaches the CPU (the system) making an input signal from the on-screen keyboard displayed emulate an input signal by key entry (the matrix is a variable array of keys emulated by the LEDs shown on the display means), as recited in column 3, lines 48-56 and column 4, lines 22-25. It would have been obvious to one of ordinary skill in the art, having the teachings of Kapp et al. and Cairns before him at the time the invention was made, to modify the system of Kapp et al. to include the correlation between the key input and the on-screen display, as taught by Cairns. One would have been motivated to make such a combination in order to allow users to see the password that they are entering, allowing them the advantage of being able to correct any mistakes they might have made in hitting the keystrokes.

Referring to claims 7, 14, 16 and 18, while Kapp et al. teach all of the limitations as applied to the claims above, they fail to teach the use of read only memory (ROM) for reading data on startup. Cairns teaches use of ROM to store the characters associated with the on-screen keyboard (matrix) displayed to the user, as recited in column 4, lines 12-32. It would have been obvious to one of ordinary skill in the art, having the teachings of Kapp et al. and Cairns before him at the time the invention was made, to modify the system of Kapp et al. to include the use of ROM, as taught by Cairns. It would have been advantageous to utilize such a combination to

provide enhanced security so the keyboard layouts cannot be changed by the user, by using read-only memory.

8. The prior art made of record on form PTO-892 and not relied upon is considered pertinent to applicant's disclosure. Applicant is required under 37 C.F.R. § 1.111(c) to consider these references fully when responding to this action. The documents cited therein teach electronic books with similar mechanisms for note taking and retrieval.

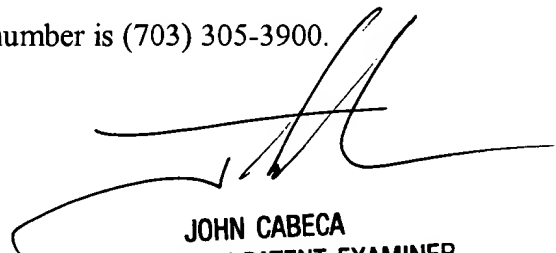
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ting Zhou whose telephone number is (703) 305-0328. The examiner can normally be reached on Monday - Friday 7:00am - 3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca can be reached on (703) 308-3116. The fax phone number for the organization where this application or proceeding is assigned is (703) 746-8720.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

December 10, 2003



JOHN CABECA  
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